What is claimed is:

1. An impurity doping method for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

each of plural types of impurity raw materials being supplied at close timings in a pulsed manner within one cycle wherein all types of said crystal raw materials are supplied in one time each in the case when plural types of said crystal raw materials are alternately supplied in a pulsed manner with maintaining each of predetermined purge times.

2. An impurity doping method for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

each of plural types of impurity raw materials being supplied at close timings in a pulsed manner either at the same time of, or after starting a supply of predetermined types of crystal raw materials as well as before starting a supply of the other predetermined types of crystal raw materials within one cycle wherein all types of said plural types of crystal raw materials are supplied in one time each in the case when plural types of said crystal raw materials are alternately supplied in a pulsed manner with maintaining each of predetermined purge times.

3. An impurity doping method for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

a first impurity raw material and a second impurity material being supplied at close timings in a pulsed manner either at the same time of, or after starting a supply of said first crystal

raw material as well as before starting a supply of said second crystal raw material within one cycle wherein said first and second crystal raw materials are supplied in one time each in the case when said first crystal raw material is supplied alternately with said second crystal raw material in a pulsed manner with maintaining each of predetermined purge times.

4. An impurity doping method for semiconductor as claimed in claim 3 wherein:

a supply of said first impurity raw material is started in synchronous with starting a supply of said first crystal raw material, a supply of said second impurity raw material is started after finishing the supply of said first impurity raw material, and the supply of said second impurity raw material is finished before starting the supply of said second crystal raw material.

5. An impurity doping method for semiconductor as claimed in claim 3 wherein:

there is a period of time wherein said first impurity raw material is supplied with said second impurity raw material at the same time.

6. An impurity doping method for semiconductor as claimed in claim 1 wherein:

a crystal raw material supplied precedently within said one cycle in said crystal raw materials is at least one member selected from the group consisting of Ga, Al, In, B, Zn, and Cd, while a crystal raw material supplied latterly within said one cycle is at least one member selected from the group consisting of N, As, P, S, Se, and Te.

7. An impurity doping method for semiconductor as claimed

in claim 2 wherein:

a crystal raw material supplied precedently within said one cycle in said crystal raw materials is at least one member selected from the group consisting of Ga, Al, In, B, Zn, and Cd, while a crystal raw material supplied latterly within said one cycle is at least one member selected from the group consisting of N, As, P, S, Se, and Te.

8. An impurity doping method for semiconductor as claimed in claim 3 wherein:

a crystal raw material supplied precedently within said one cycle in said crystal raw materials is at least one member selected from the group consisting of Ga, Al, In, B, Zn, and Cd, while a crystal raw material supplied latterly within said one cycle is at least one member selected from the group consisting of N, As, P, S, Se, and Te.

9. An impurity doping method for semiconductor as claimed in claim 4 wherein:

a crystal raw material supplied precedently within said one cycle in said crystal raw materials is at least one member selected from the group consisting of Ga, Al, In, B, Zn, and Cd, while a crystal raw material supplied latterly within said one cycle is at least one member selected from the group consisting of N, As, P, S, Se, and Te.

10. An impurity doping method for semiconductor as claimed in claim 5 wherein:

a crystal raw material supplied precedently within said one cycle in said crystal raw materials is at least one member selected from the group consisting of Ga, Al, In, B, Zn, and Cd, while

a crystal raw material supplied latterly within said one cycle is at least one member selected from the group consisting of N, As, P, S, Se, and Te.

11. An impurity doping method for semiconductor as claimed in claim 1 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

12. An impurity doping method for semiconductor as claimed in claim 2 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

13. An impurity doping method for semiconductor as claimed in claim 3 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

14. An impurity doping method for semiconductor as claimed in claim 4 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

15. An impurity doping method for semiconductor as claimed in claim 5 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

16. An impurity doping method for semiconductor as claimed in claim 6 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

17. An impurity doping method for semiconductor as claimed

in claim 7 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

18. An impurity doping method for semiconductor as claimed in claim 8 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

19. An impurity doping method for semiconductor as claimed in claim 9 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

20. An impurity doping method for semiconductor as claimed in claim 10 wherein:

said impurity raw materials are a p-type impurity raw material and an n-type impurity raw material.

21. An impurity doping method for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

a cycle composed of:

a first step wherein a supply of TMGa and $(Cp)_2Mg$ is started at a first timing, and the supply of TMGa and $(Cp)_2Mg$ is finished at a second timing at which the supply of TMGa and $(Cp)_2Mg$ for a predetermined period of time was completed;

a second step wherein a supply of TESi is started either immediately after, or after the second timing at which the supply of TMGa and $(Cp)_2Mg$ was finished, and the supply of TESi is finished at a third timing at which the supply of TESi for a predetermined period of time was completed;

a third step wherein a supply of NH_3 is started either immediately after, or after the third timing at which the supply of TESi is finished, and the supply of NH_3 is finished at a fourth timing at which the supply of NH_3 for a predetermined period of time was completed; and

a fourth step wherein a predetermined purge time is started after the supply of NH_3 is finished at the fourth timing at which the supply of NH_3 was completed, and said predetermined purge time is finished at a fifth timing;

being repeated a desired number of times.

22. A semiconductor material prepared by doping a crystal layer with plural types of impurities comprising:

said plural types of impurities being disposed closely with each other in said crystal layer at a predetermined ratio.

23. A semiconductor material prepared by doping a crystal layer made of Ga with Mg and Si comprising:

Mg and Si being disposed closely with each other in said crystal layer made of Ga at a predetermined ratio.

24. An impurity doping system for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

a reaction tube to the interior of which is disposed a substrate;

a plurality of pipes for supplying raw material gases of the crystal raw materials as well as for supplying raw material gases of impurity raw materials into said reaction tube, respectively;

gas valves mounted on said plurality of pipes, respectively;

a flow rate setting means for setting out each flow rate of the raw material gases of said crystal raw materials and the raw material gases of said impurity raw materials flowing through said plurality of pipes, respectively, to a predetermined value;

a heating means for heating said substrate disposed inside said reaction tube; and

a control means for controlling closing motions of said gas valves, flow rates set out by said flow rate setting means, heating of said substrate by means of said heating means, and controlling further in such that the raw material gases of said crystal raw materials and the raw material gases of said impurity raw materials are supplied into said reaction tube through said pipes at predetermined timings, respectively, in a pulsed manner.

25. An impurity doping system for semiconductor wherein a crystal layer made of crystal raw materials is doped with impurities, comprising:

a reaction tube to the interior of which is disposed a substrate;

a first pipe for supplying NH_3 gas into said reaction tube together with H_2 gas being a carrier gas;

a second pipe for supplying TMGa, $(Cp)_2Mg$, and TESi into said reaction tube together with H_2 gas being a carrier gas;

a third pipe for supplying N_2 gas being a carrier gas into said reaction tube;

gas valves mounted on said first, second, and third pipes, respectively;

a flow rate setting means for setting out each flow rate of gases flowing through said first, second, and third pipes,

respectively, to a predetermined value;

a heating means for heating said substrate disposed inside said reaction tube; and

a control means for controlling closing motions of said gas valves, flow rates set out by said flow rate setting means, heating of said substrate by means of said heating means, and controlling further in such that NH_3 gas is supplied in said reaction tube through said first pipe, TMGa, $(Cp)_2Mg$, and TESi are supplied into said reaction tube through said second pipe, and N_2 gas is supplied into said reaction tube through said third pipe at predetermined timings, respectively, in a pulsed manner.